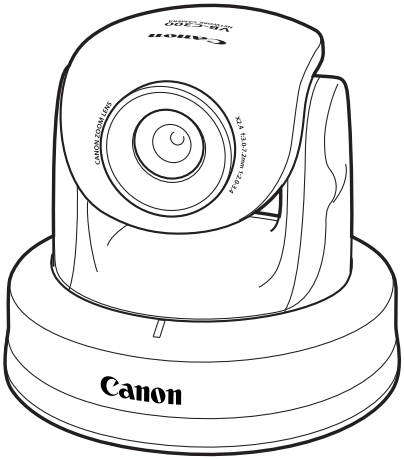
NETWORK CAMERA

VB-C300

Start Guide



Please read these Start Guide and Operation Guide carefully before operation. Be sure to read the "⚠ Safe Use of Equipment" section before using this equipment. Store this manual in a readily accessible location for future reference.

ENG

Introduction

Thank you for purchasing the Canon Network Camera VB-C300 (hereafter referred to as the VB-C300).
This User's Manual describes how to set up and use the VB-C300. Read this Manual carefully before using the VB-C300 to ensure effective operation. Make sure that you read the "⚠ Safe Use of Equipment" in this Manual, as well as the supplied CD-ROM ReadMe file.
For the latest information (firmware, software, manual and the hardware and software requirements, etc.) please refer to our WebView Product web page: canon.com/webview

Exclusion of Liability

If the Product is connected to a recording device, Canon Inc. accepts no responsibility whatsoever for any financial losses that may be incurred as a result of the loss of recorded information or images, regardless of the internal or external cause of the loss.

On Copyrights

Videos, images or sounds taken or recorded with your VB-C300 may not be utilized or published, without consent of copyright holders, if any, except in such a way as permitted for personal use under relevant copyright law.

Notes

1. The unauthorized transfer of all or any part of the contents of this Manual is forbidden.
2. The contents of this Manual are subject to change without notice.
3. Every effort has been made to ensure that this Manual is flawless. However, if you find any oversights, please let us know.
4. Notwithstanding the above, Canon accepts no responsibility for any effects resulting from the use of this Manual.

Trademark Notices

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- Microsoft and Windows are registered trademarks of Microsoft Corporation in the United States and other countries.
- Windows is legally recognized as Microsoft Windows Operating System.
- Other brand or product names in this Manual may be trademarks or registered trademarks of their respective companies.

WARNING : To reduce the risk of electric shock, do not expose this appliance to rain or moisture.

Request concerning disclosure of videos and audio

With respect to the disclosure of videos and audio, we request that sufficient consideration be given to matters of privacy and rights not to be photographed.
<Reference>

- Locate camera so that people cannot make special specifications.
- When videos are taken of specific buildings, interiors and the like, install the camera only after receiving approval from the administrator.

Please note that the operator of the camera site and not Canon has full responsibility regarding the disclosure of videos and audio.

Legal Notice

In some countries or regions, monitoring via a camera is banned by the law or regulation, and the law or regulation depends on the country or region.

Before using the VB-C300, check the law or regulation of the country or region where the camera is used.

Usage Notice of Audio

- The audio and video may be out of sync.
- The audio stream may be interrupted according to the performance of your PC and the network environment.
- You can send audio and video to up to 15 clients. However, if there are a large number of clients, the audio stream may be interrupted.
- The audio stream may be interrupted if you use anti-virus software.
- Disconnecting the LAN cable also disconnects audio. Reconnect to the camera from the NC Viewer.

■European Union (and EEA) only.

This symbol indicates that this product is not to be disposed of with your household waste, according to the WEEE Directive (2002/96/EC) and your national law. This product should be handed over to a designated collection point, e.g., on an authorized one-for-one basis when you buy a new similar product or to an authorized collection site for recycling waste electrical and electronic equipment (EEE). Improper handling of this type of waste could have a possible negative impact on the environment and human health due to potentially hazardous substances that are generally associated with EEE. At the same time, your cooperation in the correct disposal of this product will contribute to the effective usage of natural resources. For more information about where you can drop off your waste equipment for recycling, please contact your local city office, waste authority, approved WEEE scheme or your household waste disposal service.

For more information regarding return and recycling of WEEE products, please visit www.canon-europe.com/environment.

(EEA: Norway, Iceland and Liechtenstein)

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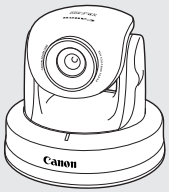
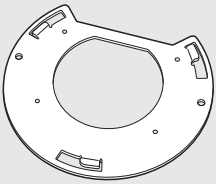
Package Contents

The VB-C300 package contains the following items. If any of these items is missing, please contact the retailer from which you purchased the product.

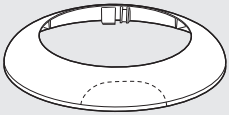
1. VB-C300 main unit



2. Ceiling Bracket



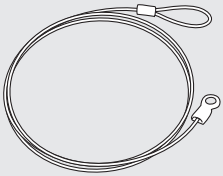
3. Ceiling Mount Cover



4. Screws (Four)

*For fixing the camera to the Ceiling Bracket

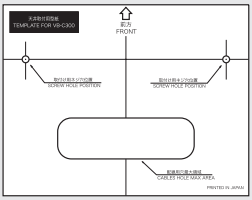
5. Safety Wire



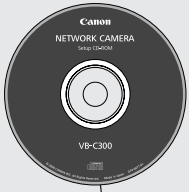
6. Power Connector

7. Rubber Foot (Four)

8. Template



9. Setup CD-ROM



10. Start Guide (This document)

11. Warranty Card (NTSC model only)

Setup CD-ROM Contents

ReadMe-J.txt (Japanese text containing precautions etc. other than those in this document)
ReadMe-E.txt (English text containing precautions etc. other than those in this document)
VBSetup.exe (Initial settings tool → P.2-7)*
MANUAL folder (PDF file for Start Guide and Operation Guide, Japanese and English versions) *
VBTools folder (Bundled software installer set)*

* For the latest information such as the bundled software and manual, please refer to our WebView Product web page: canon.com/webview

How to Read Manuals

About User's Manuals

The VB-C300 is provided with two documents; "Start Guide" (this manual) and "Operation Guide" stored on the supplied Setup CD-ROM.

For information about installation and initial set up of the VB-C300

Start Guide
(Manual_sg_E.pdf)
(This manual)

This manual explains the safety precautions, operating environment, configuration and options, initialization, software installation, mounting, and specifications of the VB-300.
The Start Guide is supplied with the product.

For detailed information about how to use the VB-C300

Operation Guide
(Manual_og_E.pdf)

This manual explains how to configure the basic settings of the camera, how to use the VBAdmin Tools and NC Viewer, how to troubleshoot the VB-C300, specifications and detailed operation method of the VB-C300. Sections where the user should refer to this Manual are indicated by the icon accompanied by the relevant page number. The Operation Guide is contained in the Setup CD-ROM.

Icons Used in this Manual

This guide uses the following icons to attract the reader's attention to text which is particularly important.

Icon	Explanation
Note	This icon indicates important information that must be observed or actions that are prohibited during an operation. These notes must be read to prevent possible faults or damage to the equipment.
Tip	Indicates supplementary information or a reference to an operation. Users are advised to read these memos.
	Refer to the Operation Guide PDF manual on the supplied Setup CD-ROM.

⚠ Safe Use of Equipment

An exclamation point, within a triangle, is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the equipment.

⚠ Important Warnings

⚠ CAUTION:

TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER (OR BACK). NO USER-SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.

The serial number of this equipment may be found on the bottom of the VB-C300. No others have the same serial number as yours.
You should record the number and other vital information here and retain this book as a permanent record of your purchase to aid identification in case of theft.

Date of Purchase
Dealer Purchased from
Dealer Address
Dealer Phone No.
Model No. VB-C300
Serial No.

For Users in the UK (PA-V17) (Optional)

When replacing the fuse only a correctly rated approved type should be used and be sure to re-fit the fuse cover.

The AC adapter can be connected to the VB-C300 from a standard AC power outlet. Please check your instruction manual to make sure that your VB-C300 is compatible with this adapter.

– The socket-outlet should be installed near the equipment and should be easily accessible.
– Unplug the apparatus from the wall outlet before cleaning or maintaining.

⚠ Important Operational Instructions

⚠ WARNING:

TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT EXPOSE THIS EQUIPMENT TO RAIN OR MOISTURE.

⚠ CAUTION:

TO REDUCE THE RISK OF ELECTRIC SHOCK AND TO REDUCE ANNOYING INTERFERENCE, USE THE RECOMMENDED ACCESSORIES ONLY.

FDA regulation

This Network Camera has not been evaluated by the Food and Drug Administration (FDA) for use as a medical device. When incorporated into a system with medical applications, FDA regulations may apply. Therefore, please consult your legal advisor to determine whether FDA regulations apply.

FCC NOTICE

Network Camera, Model Name: VB-C300NA, VB-C300PA

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Use of shielded cable is required to comply with class B limits in Subpart B of Part 15 of FCC Rules.

Do not make any changes or modifications to the equipment unless otherwise specified in the manual. If such changes or modifications should be made, you could be required to stop operation of the equipment.

Canon U.S.A. Inc.
One Canon Plaza, Lake Success, NY 11042, U.S.A.
Tel No. (516) 328-5600

Canadian Radio Interference Regulations

This Class B digital apparatus complies with Canadian ICES-003.

Réglementation canadienne sur les intérferences radio

Cet appareil numérique de la classe B est conforme à la norme NMB-003 du Canada.

Dieses Produkt ist zum Gebrauch im Wohnbereich, Geschäfts- und Gewerbebereich sowie in Kleinbetrieben vorgesehen.

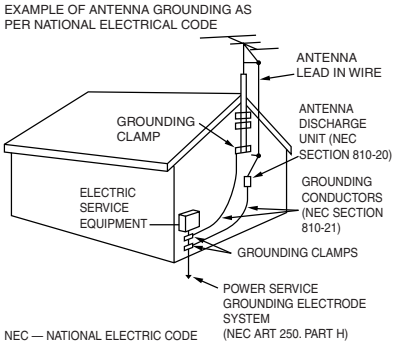
⚠ IMPORTANT SAFETY INSTRUCTIONS

In these safety instructions, the word "equipment" refers to the Canon Network Camera VB-C300 and all its accessories.

1. Read Instructions - All the safety and operating instructions should be read before the equipment is operated.
2. Retain Instructions - The safety and operating instructions should be retained for future reference.
3. Heed Warnings - All warnings on the equipment and in the operating instructions should be adhered to.
4. Follow Instructions - All operating and maintenance instructions should be followed.
5. Cleaning - Unplug this equipment from the wall outlet before cleaning.
   Wipe the equipment with a clean soft cloth. If necessary, put a cloth in diluted neutral detergent and wring it well before wiping the equipment with it. Finally, clean the equipment with a clean dry cloth. Do not use benzene, thinner or other volatile liquids or pesticides as they may damage the product's finish. When using chemically-treated cleaning cloths, observe those precautions accordingly.
6. Accessories - Do not use accessories not recommended in this Manual as they may be hazardous. Always use specified connection cables. Connect devices correctly.
7. Water and Moisture - Hazard of electric shock - Do not use the equipment near water or in rainy/moist situations. Do not put a heater near this equipment.
8. Placing or Moving - Do not place on an unstable cart, stand, tripod, bracket or table. The equipment may fall, causing serious injury to a child or adult, and serious damage to the equipment. An equipment and cart combination should be moved with care.
   Quick stops, excessive force, and uneven surfaces may cause the equipment and cart combination to overturn.

9. Power Sources - The PA-V17 AC adapter (optional) should be operated only from the type of power source indicated on the marking label. If you are not sure of the type of power supply to your home, consult your equipment dealer or local power company.
10. Polarization - The PA-V17 AC adapter (optional) is equipped with a polarized 2-prong plug (a plug having one blade wider than the other).
    The 2-prong polarized plug will fit into the power outlet only one way. This is a safety feature. If you are unable to insert the plug fully into the outlet, try reversing the plug. If the plug still fails to fit, contact your electrician to replace your obsolete outlet. Do not defeat the safety purpose of the polarized plug.
11. Power Cord Protection - Power cords should be routed so that they are not likely to be walked on or pinched by items placed upon or against them. Pay particular attention to plugs and the point from which the cords exit the equipment.
12. Outdoor Antenna Grounding - If an outside antenna is connected to the equipment, be sure the antenna is grounded so as to provide some protection against voltage surges and built-up static charges. Section 810 of the National Electrical Code, ANSI/NFPA No.70-1984, provides information with respect to proper grounding of the mast and supporting structure, grounding of the lead-in wire to an antenna discharge unit, size of grounding conductors, location of antenna, antenna discharge unit, connection to grounding electrodes, and requirements for the grounding electrode. See figure 1.

fig-1


EXAMPLE OF ANTENNA GROUNDING AS PER NATIONAL ELECTRICAL CODE
ANTENNA LEAD IN WIRE
ANTENNA DISCHARGE UNIT (NEC SECTION 810-20)
GROUNDING CLAMP
GROUNDING CONDUCTORS (NEC SECTION 810-21)
ELECTRIC SERVICE EQUIPMENT
GROUNDING CLAMPS
POWER SERVICE GROUNDING ELECTRODE SYSTEM (NEC ART 250. PART H)
NEC — NATIONAL ELECTRIC CODE

13. Lightning - For added protection of this equipment during a lightning storm, or when it is left unattended and unused for long periods of time, disconnect it from the wall outlet and disconnect the antenna. This will prevent damage to the equipment due to lightning and power-line surges.
14. Power Lines - An outside antenna system should not be located in the vicinity of overhead power lines or other electric light or power circuits, or where it can fall into such power lines or circuits. When installing an outside antenna system, extreme care should be taken to keep from touching such power lines or circuits as contact with them might be fatal.
15. Overloading - Do not overload wall outlets and extension cords as this can result in a risk of fire or electric shock.
16. Object and Liquid Entry - Never push objects of any kind into this equipment through openings as they may touch dangerous voltage points or short out parts that could result in a fire or electric shock. Be careful not to spill liquid of any kind onto the equipment.
17. Servicing - Do not attempt to service this equipment yourself as opening or removing covers may expose you to dangerous voltage or other hazards. Refer all servicing to qualified personnel.
18. Damage Requiring Service - Disconnect this equipment from the wall outlet and all power sources including batteries, and refer servicing to qualified service personnel under the following conditions.
    a. When the power-supply cord or plug is damaged.
    b. If any liquid has been spilled onto, or objects have fallen into, the equipment.
    c. If the equipment has been exposed to rain or water.
    d. If the equipment does not operate normally even if you follow the operating instructions. Adjust only those controls that are covered by the operation instructions. Improper adjustment of other controls may result in damage and will often require extensive work by a qualified technician to restore the equipment to its normal operation.
    e. If the equipment has been dropped or the cabinet has been damaged.
    f. When the equipment exhibits a distinct change in performance. This indicates a need for service.
19. Replacement Parts - When replacement parts are required, be sure the service technician has used replacement parts that are specified by Canon or that have the same characteristics as the original part. Unauthorized substitutions may result in fire, electric shock or other hazards.
20. Safety Check - Upon completion of any service or repairs to this equipment, ask the service technician to perform safety checks to determine that the equipment is in safe operating order.
21. Do not install the equipment in the following locations as this can cause a fire or electric shock:
    - Hot locations
    - Close to a fire
    - Very humid or dusty locations

- Locations exposed to direct sunlight
- Locations exposed to salt spray
- Close to flammable solvents (alcohol, thinners, etc.)

22. When any of the following occurs, immediately switch off the equipment, unplug it from the main power supply and contact your nearest Canon supplier. Do not continue to use the equipment as this can cause a fire or electric shock.
    - The equipment emits any smoke, heat, abnormal noise, or unusual odor.
    - A metal object falls into the equipment.
    - The equipment is damaged in some way.
23. Please observe the following when using the equipment. Failure to do so can result in a fire or electric shock.
    - Do not use flammable sprays near the equipment.
    - Do not subject the equipment to strong impacts.
24. Make sure the power line and network cable are implemented in a safe manner accordingly to the related technical regulations.
25. Focusing on the direct sunlight, halogen lamp or any other high-intensity lamp for a long time may cause damage to the image sensor.
26. This installation should be made by a qualified service person and should confirm to all local codes.

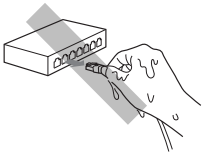
For CA, USA only

Included lithium battery contains Perchlorate Material - special handling may apply.
See www.dtsc.ca.gov/hazardouswaste/perchlorate/ for details.

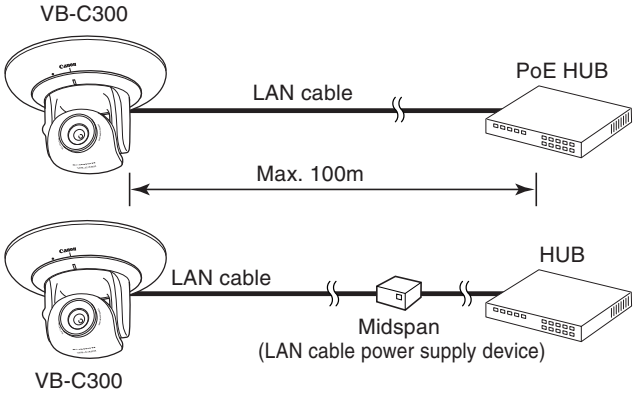
When using the camera with PoE HUB

⚠ CAUTION:

- **Use the PoE HUB or Midspan which is compliant with IEEE802.3af and has been confirmed for the interoperability with the camera.**
- **Do not touch the tip of the LAN cable with a wet hand.**



- **When the PoE HUB and AC adapter (optional) are both connected to the camera, the PoE-supplied power is used while it is active, and the power from the AC adapter is not used.**
- **Although some PoE HUBs can limit the current used by each port, limiting may prevent the camera from operating correctly. In this case, do not limit the current for the port used by the camera.**
- **Some PoE HUBs have a limit on the total current consumption of the ports and using multiple ports of a single hub may prevent the camera from operating correctly. Check the manual of the PoE HUB used.**
- **Use a LAN cable conforming to Category 5 or higher standard (max. length: 100m).**
- **Use a shielded twisted-pair (STP) cable conforming to the EMC standard as the LAN cable.**



* Similarly to the PoE HUB, a Midspan (LAN cable power supply device) supplies power to the camera via the LAN cable.

Maintenance

Be sure to turn the power off before doing maintenance (→ P.2-5).

■ Cleaning the Equipment

1. **Carefully wipe the equipment with a soft cloth that has been moistened with water or a mild detergent.**
2. **Wipe with a piece of dry cloth.**

■ Cleaning the Lens

Use a commercially available lens cleaner to remove any soiling from the lens.

- The auto-focus may not function correctly if the surface of the lens is dirty.
- Scratches on the surface of the lens will cause video defects.

■ When using the Indoor Dome Housing (Optional)

The dome should be cleaned regularly because the video quality may get deteriorated if the surface of the dome is dirty.

1. **Remove the dome as directed in Steps 8 and 9 in "When Mounting the Camera on the Ceiling with the Indoor Dome Housing (VB-RD41S-C/S) (optional)" (→ P.2-22).**
2. **Carefully wipe the dome with a soft cloth that has been moistened with water or a mild detergent.**
3. **Wipe with a piece of dry cloth.**
4. **Attach the dome as directed in Steps 8 and 9 in "When Mounting the Camera on the Ceiling with the Indoor Dome Housing (VB-RD41S-C/S) (optional)" (→ P.2-22).**

Chapter

Before Using the VB-C300

This chapter describes the features of the VB-C300, the hardware and software requirements, and the name and functions of the system components.

Features of the VB-C300

The VB-C300 is a network camera integrating a camera and server functions into a compact form factor.

■ AF Zoom lens with horizontal viewing angle of 70° and pan/tilt functions

The VB-C300 has a zoom lens with horizontal viewing angle of 70° and optical 2.4X (and digital 4X) zoom lens which can capture a wide range at a time. In addition to a bird's eye view of the entire area, the VB-C300 can capture a wide-angle image even if it is close to the object. The VB-C300 has the AF capability as well as pan and tilt functions to move the camera horizontally and vertically, allowing easy adjustment of the viewing angle when the layout of the target area is changed. These functions are also useful when monitoring the situation by remote-controlling the camera.

■ High-quality video of moving objects

The VB-C300 uses the progressive-scan CCD to allow capturing noise-less high quality images of moving objects.

■ Color capturing under 1 lux and auto Day & Night

The VB-C300 can capture color images under as dark as 1 lux (NTSC: 1/30 sec. PAL: 1/25 sec.) in the Day mode and monochrome images under as dark as 0.25 lux (NTSC: 1/30 sec. PAL: 1/25 sec.) in the Night mode (by disabling the infrared cut filter).The VB-C300 also has the Day & Night switching function* (→ Operation Guide P.1-10) to automatically switch between color capturing under bright conditions during daytime and monochrome capturing under dark conditions during nighttime, making the camera suitable for monitoring at locations where environmental brightness changes during a day.

* A through test is required in advance to use the Day & Night switching function.

■ Video distribution server function

Motion-JPEG type is used to compress video images to enable distribution of high-quality videos at a high frame rate (NTSC: up to 30 fps, PAL: up to 25 fps*) with VGA (640 x 480) size. Up to 15 clients can view video at the same time from a single VB-C300.

* The frame rate may be decreased depending on the Viewer PC's capability or network traffic.

■ Camera position presets

By saving frequently-used camera settings such as camera head aim and zoom position as presets, you can control the camera from the NC Viewer by simply selecting a desired preset. Up to 20 presets can be set (→ Operation Guide P.2-10).

■ Panorama Image Creation function and various settings

The full view of the area that camera covers can be registered as a panorama image. You can define presets visually and easily by using a registered panorama image.

■ Transmission and reception of audio (full duplex)

You can send and receive audio via the NC Viewer (full duplex) by connecting a microphone and speaker with amp to the camera*.

* The microphone and speaker are sold separately.

Upright Position and Ceiling Mount

The VB-C300 can be mounted at the upright position or on the ceiling by simply changing settings (→ Operation Guide P.1-9).

* The camera cannot be installed in locations subject to direct sunlight, high temperatures, high humidity, or other adverse conditions (→ P.x).

Compact and Stylish Design

The camera's stylish design fits various environments as a part of construction or interior. Also the supplied ceiling mount cover will hide the ceiling bracket and cables (→ P.vi) when mounting the camera on the ceiling.

PoE Function

The camera is capable of the PoE function to transfer video/audio data and supply power via a LAN cable connected to a PoE* HUB (→ P.xiii). You do not have to prepare power supply if you connect the camera to a PoE HUB.

*Power over Ethernet. Compliant with the IEEE 802.3af standard by the Institute of Electrical and Electronic Engineers.

Up to 100 m of the LAN cable can be connected between the camera and the PoE HUB (→ P.xiii).

Shade Correction Function (NC Viewer)

If the background of an image is bright, making the subject difficult to see, you can adjust the contrast of the darker areas to make it easier to see. Unlike backlight compensation, the shade correction feature allows image processing without adversely affecting the existing lighter regions (→ Operation Guide P.3-29).

Optional Indoor Dome Housing for Various Mounting Options

You can use the optional indoor dome housing (→ P.1-9). Two types of dome housing are provided. The Smoke type hides the presence of the camera and the Clear type appeals the presence of the camera while protecting it from dusts. You can install the camera as a dome camera and allow various mounting options.

Monitoring Videos from Multiple Locations using Optional Recording Software

You can use the optional recording software "Network Video Recorder VK-64/VK-16 V1.3" (→ P.1-10) to build a video monitoring system consisting of the network cameras installed at multiple locations.

Operating Environment

For the latest information (firmware, supplied software, manual and the hardware and software requirements, etc.), please refer to our WebView Product web page: canon.com/webview

VB Initial Setup Tool Ver. 3.0 (→ P.2-7)

This tool is for performing initial settings for the VB-C300.

Operating System/ Web Browser	Windows 2000 Professional (SP4)/Microsoft Internet Explorer 6.0 (SP1) Windows XP (SP1a)/Microsoft Internet Explorer 6.0 (SP1) Windows XP (SP2)/Microsoft Internet Explorer 6.0 (SP2) Windows Server 2003 Standard Edition/Microsoft Internet Explorer 6.0 Windows Server 2003 Standard Edition (SP1)/Microsoft Internet Explorer 6.0 (SP1) Windows Server 2003 R2 Standard Edition (SP1)/Microsoft Internet Explorer 6.0 (SP1)

NC Viewer Ver. 1.0 (→ Operation Guide P.3-2)

The viewer software that is supplied with the VB-C300. You can view the video captured by the VB-C300 and control the camera.

Operating System/ Web Browser	Windows 2000 Professional (SP4)/Microsoft Internet Explorer 6.0 (SP1) Windows XP (SP1a)/Microsoft Internet Explorer 6.0 (SP1) Windows XP (SP2)/Microsoft Internet Explorer 6.0 (SP2) Windows Server 2003 Standard Edition/Microsoft Internet Explorer 6.0 Windows Server 2003 Standard Edition (SP1)/Microsoft Internet Explorer 6.0 (SP1) Windows Server 2003 R2 Standard Edition (SP1)/Microsoft Internet Explorer 6.0 (SP1)

* Must be installed from the supplied Setup CD-ROM in advance (→ P.2-11).

Note

When using the VB-C300 with the VB-C50 series, install the Viewer for PC supplied with the VB-C50 series camera.

VBAdmin Tools Ver. 3.0 (→ Operation Guide P.2-2)

Use the VBAdmin Tools to create panoramas, set presets, view logs, and configure the NC Viewer.

Operating System/ Web Browser	Windows 2000 professional (SP4)/Microsoft Internet Explorer 6.0 (SP1) Windows XP (SP1a)/Microsoft Internet Explorer 6.0 (SP1) Windows XP (SP2)/Microsoft Internet Explorer 6.0 (SP2) Windows Server 2003 Standard Edition/Microsoft Internet Explorer 6.0 Windows Server 2003 Standard Edition (SP1)/Microsoft Internet Explorer 6.0 (SP1) Windows Server 2003 R2 Standard Edition/Microsoft Internet Explorer 6.0 (SP1)

* Must be installed from the supplied Setup CD-ROM (→ P.2-11).

Note

If the VB-C300 is used with VB-C50 series, first install the VB Administration Tools for the VB-C50 series, then install the VBAdmin Tools, for the VB-C300.

Viewer Switcher Tool Ver. 1.0 (→ Operation Guide P.3-34)

This tool switches the NC Viewer and the Viewer for PC for the VB-C50 series camera.

Operating System/ Web Browser	Windows 2000 professional (SP4)/Microsoft Internet Explorer 6.0 (SP1) Windows XP (SP1a)/Microsoft Internet Explorer 6.0 (SP1) Windows XP (SP2)/Microsoft Internet Explorer 6.0 (SP2) Windows Server 2003 Standard Edition/Microsoft Internet Explorer 6.0 Windows Server 2003 Standard Edition (SP1)/Microsoft Internet Explorer 6.0 (SP1) Windows Server 2003 R2 Standard Edition/Microsoft Internet Explorer 6.0 (SP1)

* Must be installed from the supplied Setup CD-ROM (→ P.2-11).

Note

Note on Windows XP SP2

If you start the VB Initial Setup Tool from a Windows XP SP2 PC, the Windows Security Alert dialog may appear.

If the Windows Security Alert dialog appears, click “Unblock”.

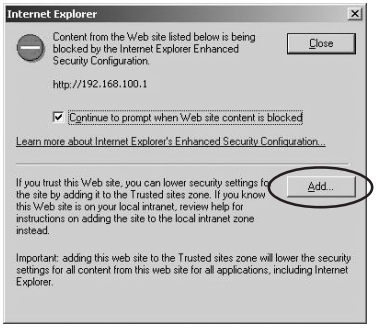
Once you click “Unblock”, the dialog box will not be displayed again.

Note on Windows Server 2003

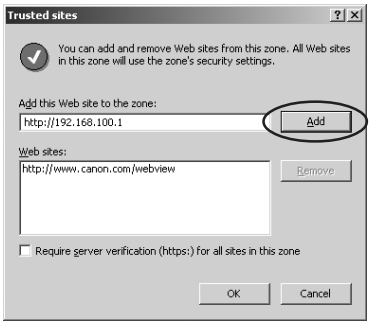
Note

With Windows Server 2003 Standard Edition running Microsoft Internet Explorer 6.0 and Windows Server 2003 Standard Edition (SP1) running Microsoft Internet Explorer 6.0 (SP1), the default security level for the Internet or intranet sites in Internet Explorer is “High”.
As a result, windows such as the settings window do not function normally unless you first register the site in the contents block dialog box that appears when you access the camera’s top page (→ P.2-10). Register the site to ensure normal functioning.

1. **When you access the camera server top page in Internet Explorer, the dialog box appears.**


Internet Explorer
Content from the Web site listed below is being blocked by the Internet Explorer Enhanced Security Configuration.
Close
http://192.168.100.1
Continue to prompt when Web site content is blocked
Learn more about Internet Explorer's Enhanced Security Configuration...
If you trust this Web site, you can lower security settings for the site by adding it to the Trusted sites zone. If you know this Web site is on your local intranet, review help for instructions on adding the site to the local intranet zone instead.
Add...
Important: adding this web site to the Trusted sites zone will lower the security settings for all content from this web site for all applications, including Internet Explorer.

2. **Click “Add”. The dialog box for adding Trusted sites appears.**

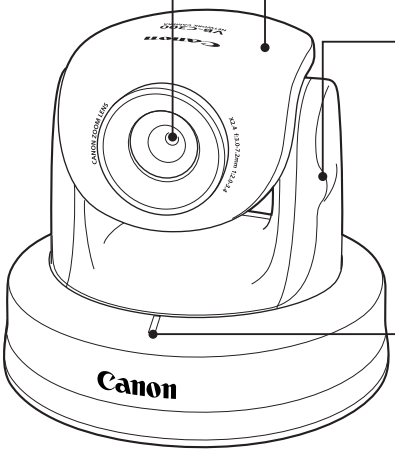

Trusted sites
You can add and remove Web sites from this zone. All Web sites in this zone will use the zone's security settings.
Add this Web site to the zone:
http://192.168.100.1
Add
Web sites:
http://www.canon.com/webview
Remove
Require server verification (https:) for all sites in this zone
OK
Cancel

3. **Enter the IP address of the VB-C300 in the “Add this Web site to the zone” box and then click “Add” to register the camera as a trusted site.**

   For more information on registering trusted sites, click “Learn more about Internet Explorer’s Enhanced Security Configuration...” in the dialog box in step 1 and refer to the summary provided.

If you have enabled the Windows firewall settings with Windows Server 2003 Standard Edition (SP1), please refer to the “Note on Windows XP SP2” (→ P.1-5) and follow the instructions.

Front



Lens
AF Zoom lens with horizontal viewing angle of 70°

Camera head

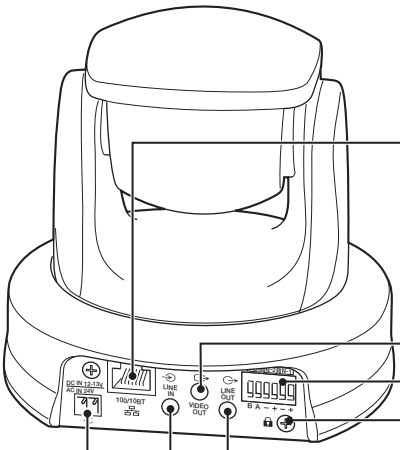
Head arm

LED
Lights in blue.

- Blinking - When the power is turned on, the camera has been rebooted, or the camera is not connected to the network.
- Continuously lights - Normal operation
- Off - When LED is set to turn OFF (→ Operation Guide P.1-19).

* Even if the LED is set to turn OFF, it flashes for several seconds then turns OFF when the power supply is turned ON or the VB-C300 has been rebooted.

Rear



100/10 BT LAN connector
(100Base-TX/10Base-T Auto-Negotiation)
Capable of PoE power supply
(compliant with IEEE 802.3af)

Video output terminal (For maintenance)

External Device I/O Terminals (→ P.3-4)

Safety wire attachment

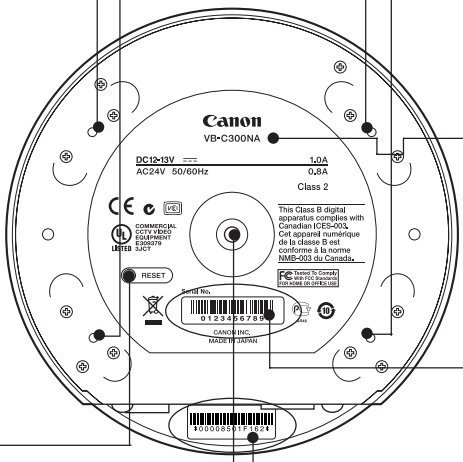
Audio output terminal (LINE OUT)

Audio input terminal (LINE IN)

Power connection socket (→ P.2-6)

Bottom

On the bottom of the VB-C300 there are the MAC address required for network settings, a Reset switch that initializes settings and the serial number.



Screw hole for Ceiling Bracket

Model Name

NTSC	VB-C300NA
PAL	VB-C300PA

Serial No.
The serial number for this unit is shown here.

MAC address
Address unique to this camera. Please make a note before installing this unit (→ P.2-8).

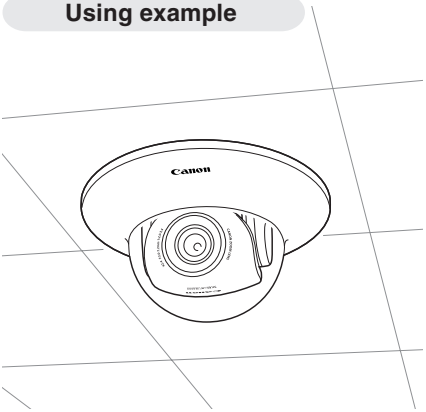
Reset switch
You can initialize settings by pressing this button with a thin-tipped object while turning on the power switch, and keeping the button pressed for more than five seconds after turning on.

Screw hole for tripod mounting

Indoor Dome Housing (VB-RD41S-C/S) (Optional)

The Indoor Dome Housing (VB-RD41S-C/S) (optional) is a dome housing dedicated to the VB-C300. Two color types are available; clear type (VB-RD41S-C) and smoked type (VB-RD41S-S). Use the dome to embedded the camera in the ceiling for neat installation.
Please note that the Indoor Dome Housing (VB-RD41S-C/S) is an optional product and is therefore sold separately.

Using example



Smoked type (VB-RD41S-S)

- Light transmittance: approx. 50%
- Minimum subject illumination:
  Day mode: 2 lux
  (NTSC: 1/30 sec. PAL: 1/25 sec., color)
  Night mode: 0.5 lux
  (NTSC: 1/30 sec. PAL: 1/25 sec., monochrome)

AC Adapter (PA-V17) (Optional)

This is an AC adapter dedicated to the VB-C300. Use the AC adapter when the PoE HUB is not used. This adapter is not supplied with the product and must be purchased separately.

Network Video Recorder VK-64/VK-16 V1.3 (Optional)

VK-64/VK-16 is a software program to view and record video images distributed from the network camera.

The VB-C300 is only supported by V1.3. It is useful when using multiple network cameras.

VK-64/VK-16 Screen Example

Note

The VB-C300 is not supported by the older versions of VK-64/VK-16. If using an older version, you need to upgrade VK-64/VK-16 to the latest version. Visit our Web site for the details.

WebView Product web page: canon.com/webview

Chapter 2

Installing the Camera

This chapter explains how to install the camera.
First, connect the camera to the network, and perform the initial setting.
Next, install the software and view the video with the NC Viewer.
Finally, mount the camera at the desired place.

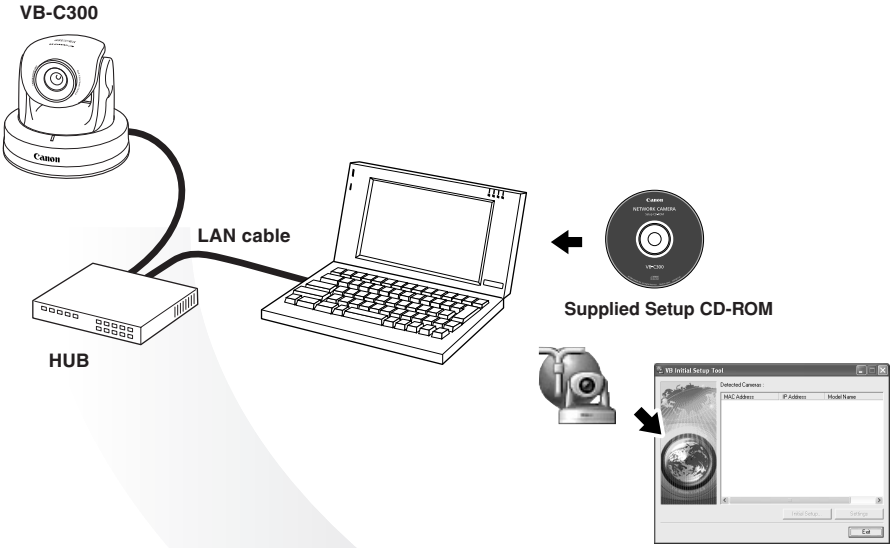
Please set the camera IP address before installing the camera.

Setup Workflow

The flow for setting up the camera and view the camera video involves; connecting the camera with the PC over the network via a HUB and perform the initial settings. Installing the necessary software on the PC, and checking to see if you can see video from the camera. Mounting the camera, and the reboot.

1 Connect the camera to the network and perform the initial setting

Connect the camera to the PC via a HUB (→ P.2-4).
Please ask our sales person when using the PoE HUB and Midspan.
Use a shielded twisted-pair (STP) cable conforming to the EMC standard as the LAN cable.
Insert the supplied Setup CD-ROM into your PC and perform the initial setting (→ P.2-7).

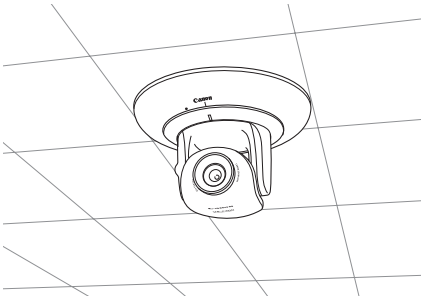


2 Install the software and view the camera video

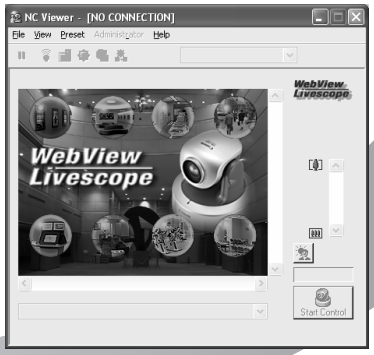
Install the necessary software (→ P.2-11).

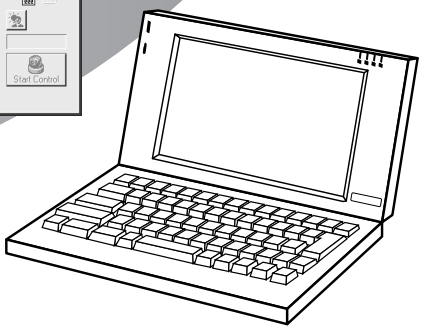
3 Set Up the Camera

Mount the camera.
Install the camera securely (→ P.2-14).



Next, use the NC Viewer to view the camera video (→ P.2-12).



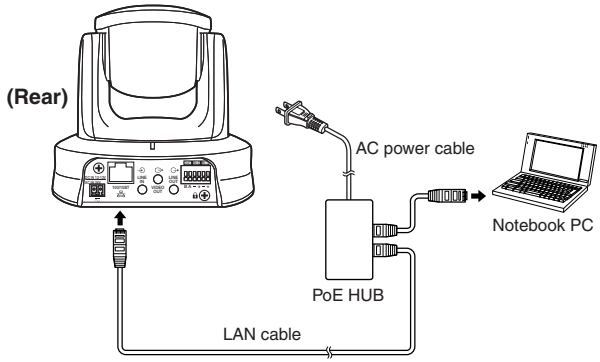


Connect the Camera to the Network and Turn the Power Supply On

First, connect the camera to the network. Connect the camera and PC via the HUB with a LAN cable, connect the camera to the network, then turn the power on. If 20 minutes have passed since the VB-C300 was turned on, it can no longer be detected by the VB Initial Setup Tool (→ P.2-7). In this case, turn the camera OFF then ON again.

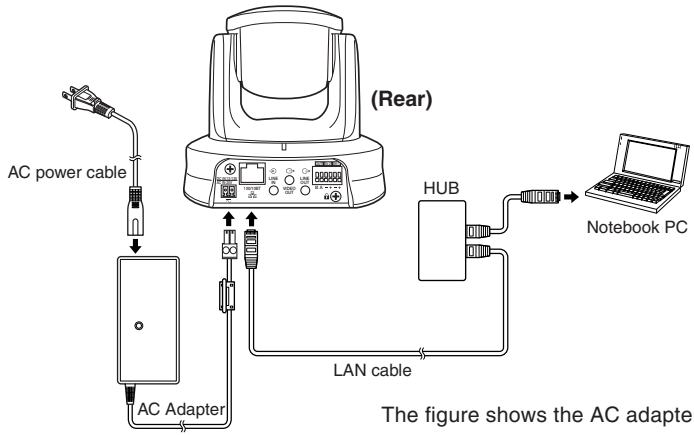
The VB-C300 is equipped with the PoE (Power over Ethernet) function. The power can be supplied to the camera via the LAN cable from an IEEE 802.3af-compliant PoE HUB.

When using PoE HUB



When using the AC adapter (optional) or external power supply, connect them as shown below.

When using the AC Adapter (Optional) or external power supply



The figure shows the AC adapter (optional).

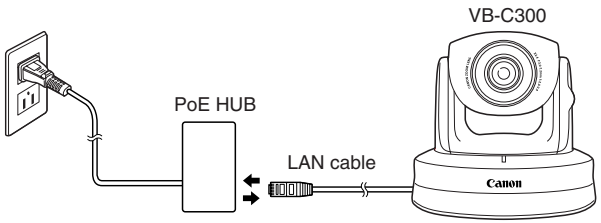
Note

- Please ask our sales person for PoE HUB and Midspan.
- Read the manual of the PoE HUB or Midspan for how to use it.
- Up to 100 m of the LAN cable can be connected between the camera and the PoE HUB.
- Use a shielded twisted-pair (STP) cable conforming to the EMS standard as the LAN cable.
- If the camera is connected to a switching HUB and connection is changed while the camera is operating, the learning capability of the HUB may disturb the communication. Do not change connection while the camera is operating.

■ Turning the Power ON and OFF

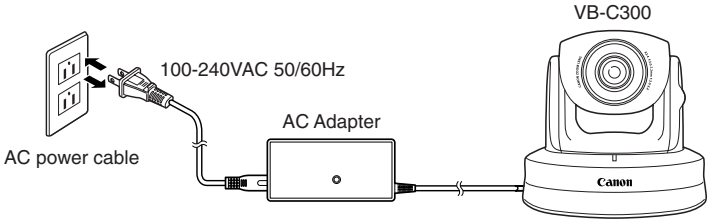
The VB-C300 itself does not have a power switch.
If the power is supplied to the VB-C300 via a LAN cable using the PoE function, connect and disconnect the LAN cable from the camera to an operating HUB to turn the power ON and OFF.

When using PoE HUB



When using the AC adapter (optional) or external power supply, the camera is powered ON by plugging the AC adapter (optional) or external power supply.

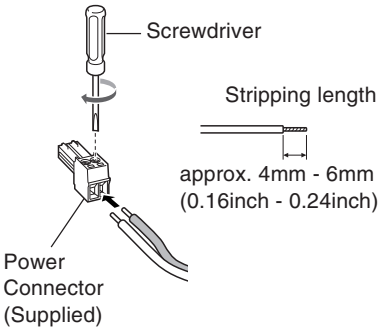
When using the AC Adapter (Optional) or external power supply



The figure shows the AC adapter (optional).

■ When using external power supply

When using external power supply, use the Power Connector (→ P.vi) supplied with the camera.
Connect the cables as shown to the right when using the supplied Power Connector.
Supply 12VDC or 24VAC from a power supply insulated from 100-240VAC supply. You can connect 12VDC power supply without regard to the polarity.



Recommended power supply cables for VB-C300 [for reference]

Cable (AWG) Conductor diameter (ømm)	#24 (0.52mm) (0.020inch)	#22 (0.65mm) (0.026inch)	#20 (0.82mm) (0.032inch)	#18 (1.03mm) (0.041inch)	#16 (1.30mm) (0.052inch)
12VDC Maximum cable length (m) Maximum cable length (ft)	 5 16.4	 9 29.5	 14 45.9	 23 75.5	 32 104.9
24VAC Maximum cable length (m) Maximum cable length (ft)	 11 36.1	 18 59.1	 29 95.1	 46 150.9	 64 210.0
Voltage range for power supply 12VDC: 10.8V - 13.2V 24VAC: 22.8V - 25.2V Use a UL cable (equivalent to UL-1015) as the power cable for 12VDC or 24VAC.					

Note

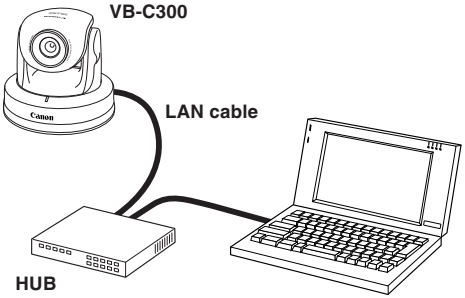
- The camera head position is automatically initialized when the power supply is turned ON.
- **Never touch the camera head while its position is being initialized.** If you touch it, the head position may not be initialized correctly, or other malfunctions may result.
- Wait at least 5 seconds before turning the power back on after shutting it off. Turning it on too quickly may result in a malfunction. Observe the precautions given in "Safe Use of Equipment/IMPORTANT SAFETY INSTRUCTIONS (→ P.viii, x), "Safe Use of Equipment/When using the camera with PoE HUB (→ P.xiii) when plugging and unplugging the power cable.
- **Read the manual of the PoE HUB for how to power it ON or OFF.**
- You can connect the AC adapter (optional) to the camera while it is powered from the PoE HUB. In this case, the PoE-supplied power is used while it is active, and the power from the AC adapter (optional) is not used. When the PoE-supplied power is disconnected, the power supply automatically switches to the AC adapter (optional).

The network connection is now complete.

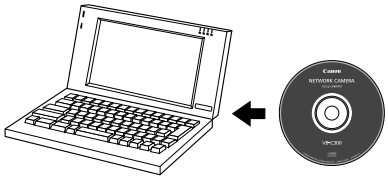
Initial setting of the Camera

The instructions here assumes that a single camera is connected to a PC as an example.

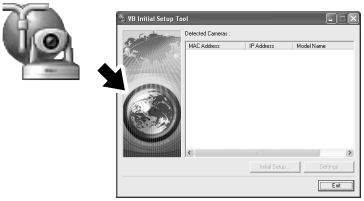
Installation Example



1. Insert the supplied Setup CD-ROM into your PC, and double-click "VBSetup.exe" from Explorer to start the VB Initial Setup Tool.



Supplied Setup CD-ROM



Continued on the following page. ➡

2. The VB Initial Setup Tool automatically detects the camera connected to the network, and displays its MAC address, IP address, and model name.

The factory default IP address is set to "192.168.100.1"

The MAC address can be found on the label attached on the bottom of the unit.

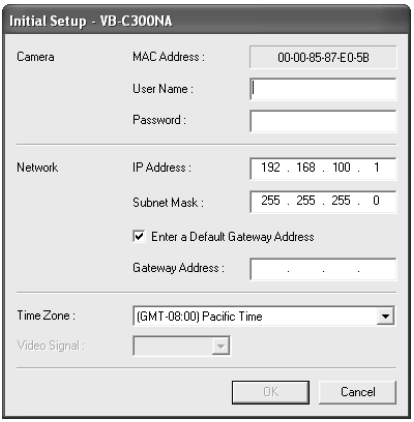
Note that VB Initial Setup Tool (VBSetup.exe) cannot be used across subnets.

Click the MAC address to select it, and click "Initial Setup".

3. Enter the user name "root" and the factory default password "VB-C300" (case sensitive) then enter the IP address and subnet mask.

If you do not want to specify a default gateway address, disable the "Enter a Default Gateway Address" box.

Once you have entered your settings, click "OK".



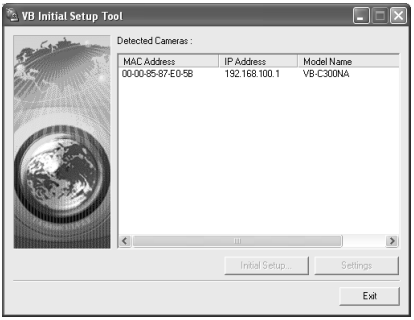
Note

For Windows XP SP2 users, see "Note on Windows XP SP2" (→ P.1-5). This Note holds true for users who have turned on Windows Firewall with Windows Server 2003 Standard Edition (SP1).

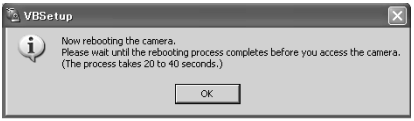
Tip

- The factory default password is "VB-C300." Be sure to change it to ensure security (→ Operation Guide P.1-6).
- The MAC address for this unit is shown on the bottom of the VB-C300 (→ P.1-8).
- The IP address **192.168.100.1** is used as the factory default setting. Please set an IP address that suits the environment in which the VB-300 is to be used.

4. A setup progress window appears and your settings will be saved.



5. Click "OK".


VBSetup
Now rebooting the camera.
Please wait until the rebooting process completes before you access the camera.
(The process takes 20 to 40 seconds.)
OK

Note

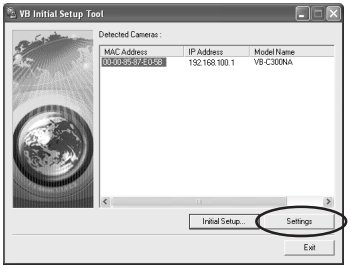
- Set the IP address to a value that suits your environment.
- Where the IP address has been automatically obtained from the DHCP server, you cannot change the IP address setting from the VB Initial Setup Tool. Change the IP address from the Network Settings page (→ Operation Guide P.1-7).
- Please consult with your network administrator for the IP address, subnet mask and default gateway address settings.
- If 20 minutes or more have passed since the VB-C300 was turned on, the VB-C300 stops sending requests for IP addresses allocation and they cannot be detected using the VB Initial Setup Tool. In this case, turn the camera OFF then ON again.
- To restore the factory default settings, refer to "Restoring the Factory Default Settings" in the Operation Guide (→ Operation Guide P.4-8).

Initial settings are now complete.

Checking the Camera Connection

When you have completed the initial setup, check that the VB-C300 is recognized correctly.

1. **Click to select the MAC address you want to check connection of and then click "Settings".**



2. **Your Web browser starts up and the top page of the camera appears.**

   If this page appears, the camera is recognized correctly.

Note

For Windows Server 2003 users, see "Note on Windows Server 2003" (→ P.1-6).

Tip

- If an authorized user is registered, a screen which asks for user name and password appears when the top page is accessed.
- You can click "Settings" to set the configuration and preferences of the camera (→ Operation Guide P.1-2).

Connection checking is now complete.

Install Necessary Software

Install software to control the camera and view video from the camera. There are three types of software you can install.

Software supplied with VB-C300

Type	Description
VBAdmin Tools	Software for managing the camera (→ Operation Guide, Chapter 2). Only the Administrator needs to install.
NC Viewer	Viewer dedicated to the VB-C300. Administrator privilege and Authorized User (with limited functionality) privilege are available (→ Operation Guide, Chapter 3).
Viewer Switcher	Switches the NC Viewer and the Viewer for PC which displays video from the VB-C50i series camera (→ Operation Guide, Chapter 3).

Note

Install the software as directed below when using the VB-C300 and VB-C50 series cameras together.

- First install the VB Administration Tools supplied with the VB-C50 series camera, then install the VBAdmin Tools supplied with the VB-C300.
- Install the Viewer for PC supplied with the VB-C50 series camera.

1. Insert the supplied Setup CD-ROM into the CD-ROM drive of your PC and follow the steps below.

① Check that all other applications are closed, and select “My Computer” from the Start menu bar.

On Windows 2000, double-click the My Computer icon on the desktop.

② Double-click the CD-ROM icon displayed, VBTools folder, then “VBToolsInstall.exe” to start the installation.

2. Once the starting screen has appeared, select the installation method and start installation.

Easy Installation: VBAdmin Tools and NC Viewer are automatically installed.

Custom Installation: You can select software to install.

3. **New icon for the installed software are created on the desktop after the installation.**

> **Tip** You cannot select the VBAdmin Tools only with Custom Installation (the NC Viewer will also be installed).

Installation is now complete.

Viewing the Camera Video

The following steps is just for viewing the camera video using the NC Viewer. For the detailed explanation on how to use the NC Viewer, see the Operation Guide (→ Operation Guide P.3-2).

1. **Double-click the NC Viewer icon on the desktop.**

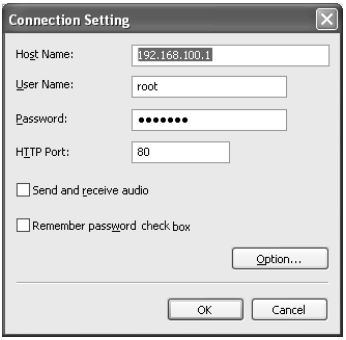
2. **The NC Viewer starts and displays its top menu.**

3. **Choose "Connect" from the File menu bar to connect to the camera.**

4. A dialog box to connect the camera appears.

Enter the IP address specified in the initial setting in the Host Name field, “root” in the User Name field, and “VB-C300” in the Password field, then click “OK” to connect to the camera.

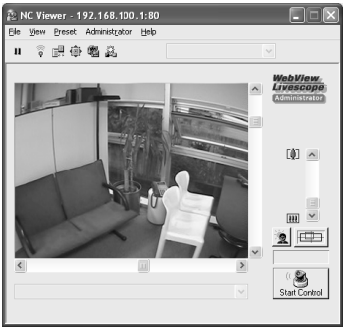
* “root” is a Administrator account of the camera.



Tip

- It is strongly recommended not to tick the Remember password box if the Administrator and authorized user use the same PC.
- Be sure to change the Administrator password to ensure security (→ Operation Guide P.1-6).

5. Your PC is connected to the camera and the video is displayed.



6. Camera connection check is complete if the video is displayed correctly.

Viewing the video is now complete.

■ Before Setting Up the Camera

Be sure to define the IP address (→ P.2-7) before installing the camera.

Note

- If 20 minutes or more have passed since the VB-C300 was turned on, the VB-C300 stops sending requests for IP addresses allocation and they cannot be detected using the VB Initial Setup Tool. Therefore, specify the IP address and confirm the camera operation before setting up the camera as directed in “Initial setting of the Camera” (→ P.2-7).
- The permissible camera installation angles are ±20° from the horizontal.
- The MAC address for this unit is shown on the bottom of the VB-C300 (→ P.1-8). Please make a note before installing this unit.
- When holding the camera, hold it with the head arm but not the camera head.
- The unit cannot be installed in locations subject to direct sunlight, high temperatures, high humidity, or other adverse conditions (→ P.x).

When Mounting on the Ceiling

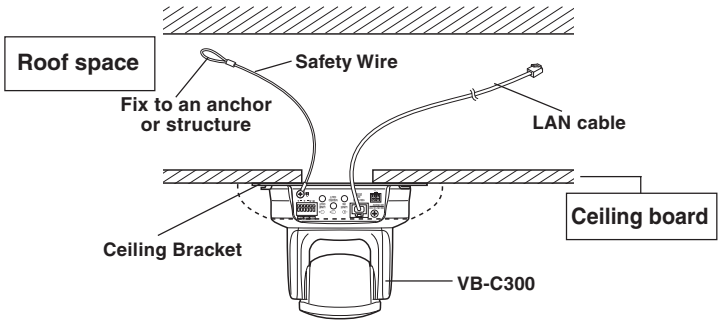
Follow the steps below to mount the camera on the ceiling. Install the camera securely.

⚠ WARNING:

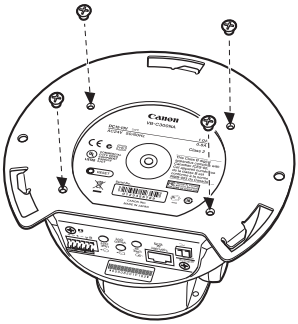
Install the camera securely.

- **When installing the VB-C300 on the ceiling, contact your Canon dealer.**
- When installing the VB-C300 on the ceiling, check that the ceiling is strong enough to bear the weight of the VB-C300 including the Ceiling Bracket. Installation in a weak location could result in the VB-C300 falling and causing serious injury.
- At least once a year, check for looseness in the camera installation mount.
- When routing the cables, pay much attention not to damage the indoor wiring or piping.

Side View of mounting



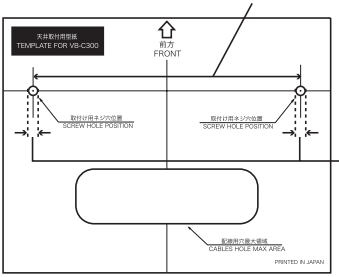
1. Mount the camera to the Ceiling Bracket with the supplied four screws.



2. Use the supplied Template to determine the mounting location of the camera.

Considering the camera orientation, determine the mounting screw and cable hole locations and mark them with a pencil.

Distance between screws: 147mm (5.79inch)



Screw hole diameter:
5.0mm (0.20inch) across

3. Drill two mounting screw holes and one cable hole on the ceiling.

Note

When using the AC adapter (optional), be sure to drill the cable hole to be large enough so that the ferrite core of the cable can pass it.

Continued on the following page. ➡

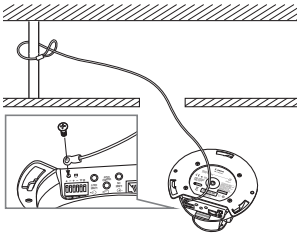
4. Secure the Safety Wire.

Secure the Safety Wire to an anchor or structure.

After securing it, attach and fix it to the camera with a screw supplied with the camera.

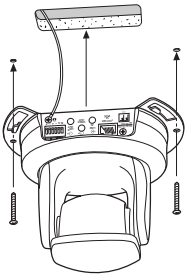
Note

If the cable hole cannot be drilled, because the ceiling is concrete for example, secure the wire to an appropriate location.



5. Mount the camera on the ceiling.

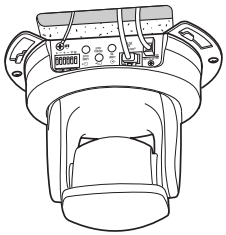
Adjust the Ceiling Bracket to the screw holes on the ceiling, then secure it to the ceiling with two screws.



6. Connect the LAN cable passing through the cable hole to the camera.

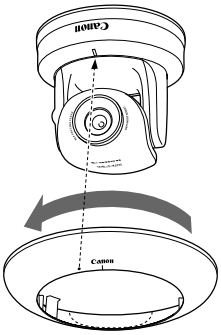
When using the AC adapter (optional) or external power supply, connect the power cable to the camera.

Connect the cables to External Device I/O terminals or Audio output/input terminals as required to the camera.



7. Attach the Ceiling Mount Cover to the camera.

Align the mark (o) on the Ceiling Mount Cover with the LED of the camera, and rotate the cover counterclockwise to the mark (I) to secure it.

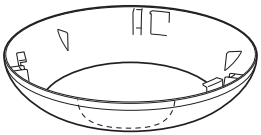


Note

Ensure that the Ceiling Mount Cover is attached securely.

Tip

If the cables cannot be fit in the roof space, because the ceiling is concrete for example, or they cannot be in the Ceiling Mount Cover, cut the notch of the Ceiling Mount Cover with a plier to provide a notch to pass the cables through. In this case, attach the Ceiling Mount Cover first, then connect the cables.



8. When you finished mounting the camera, reboot the camera to initialize the camera position (→ Operation Guide P.1-20).

Mounting is now complete.

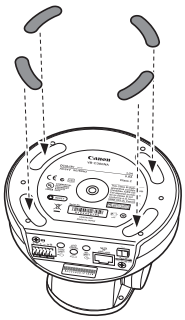
When Mounting the Camera at Upright Position

Note

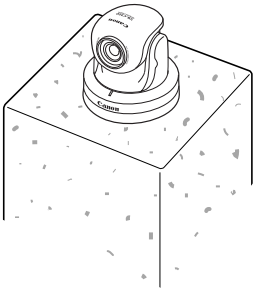
- Observe the precautions in “Before Setting Up the Camera” (→ P.2-14) and follow them before mounting the camera.
- The shooting position of the VB-C300 is set on the assumption that the camera is mounted at the inverted position. To reverse the camera video image upside down, see “Setting Image Size, Quality and Camera Control (Video and Camera)” in the Operation Guide (→ Operation Guide P.1-8).

Mounting the Camera at a Flat Location

Attach the Rubber Feet to the camera.



Place the VB-C300 at a flat and stable location.

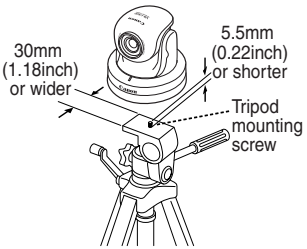


Using a Tripod

The screw hole for mounting a tripod is on the bottom of the VB-C300 toward the center.

Note

- **Do not overtighten the mounting screw.**
  If excessive force is used to tighten the mounting screw, camera head movement may be impeded, or other malfunctions may result.
- Always use a tripod mounting screw that is less than 5.5 mm (0.22 in.) in length. The use of screws 5.5 mm (0.22 in.) long or longer could damage the camera. Also, the tripod seat used should be at least 30 mm (1.18 in.) in diameter.



When Mounting the Camera on the Ceiling with the Dome Housing (VB-RD41S-C/S) (Optional)

Follow the steps below to mount the camera on the ceiling with the Indoor Dome Housing (optional). See the outer view of the dome (→ P.3-2) to determine the mounting position and orientation.

Note

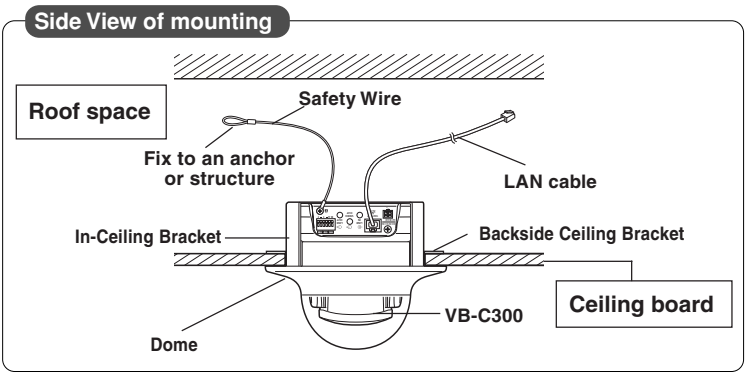
Observe the precautions in "Before Setting Up the Camera" (→ P.2-14) and follow them before mounting the camera.

⚠ WARNING:

Install the camera securely.

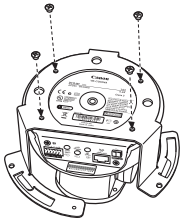
- **When installing the VB-C300 on the ceiling, contact your Canon dealer.**
- When installing the VB-C300 on the ceiling, check that the ceiling is strong enough to bear the weight of the VB-C300 including the In-Ceiling Bracket. Installation in a weak location could result in the VB-C300 falling and causing serious injury.
- At least once a year, check for looseness in the camera installation mount.
- When routing the cables, pay much attention not to damage the indoor wiring or piping.

Side View of mounting



1. Mount the camera to the In-Ceiling Bracket with the four screws.

Use the screws supplied with the Dome Housing.



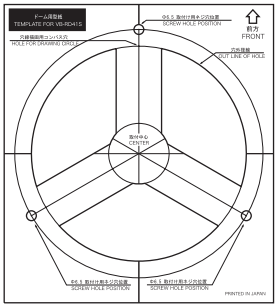
Continued on the following page. ➡

2. Determine the mounting position of the camera.

Aligning with the camera orientation, determine the screw hole locations for the Backside Ceiling Bracket and the hole location for the In-Ceiling Bracket, then mark them with a pencil.

(Mounting dimensions)

• Screw hole diameter: 6.5mm (0.26inch) across



3. Drill three mounting screw holes for the Backside Ceiling Bracket and a hole for the In-Ceiling Bracket on the ceiling.

Note

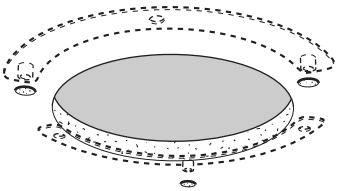
After drilling the holes, clean the mounting location so that drilled refuse may not enter the inside of the dome when installing the Indoor Dome Housing.

4. Mount the Backside Ceiling Bracket on the back side of the ceiling.

Tip

It is recommended to temporarily secure the Backside Ceiling Bracket with a two-sided tape to the ceiling, so that it may not get loose when the dome is mounted on the ceiling.

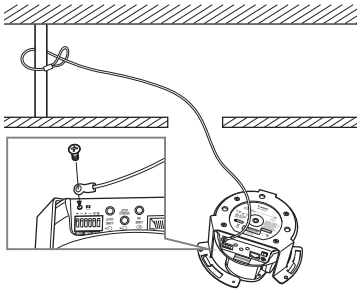
Insert the female parts on the Backside Ceiling Bracket into the holes drilled in step 3.



5. Secure the Safety Wire.

Secure the Safety Wire to an anchor or structure.

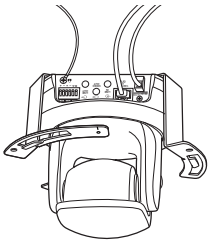
After securing it, attach and fix it to the camera with a screw supplied with the camera.



6. Connect the LAN cable passing through the cable hole to the camera.

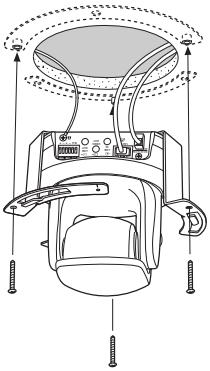
When using the AC adapter (optional) or external power supply, connect the power cable to the camera.

Connect the cables to External Device I/O terminals or Audio output/input terminals as required to the camera.



7. Mount the In-Ceiling Bracket to the ceiling.

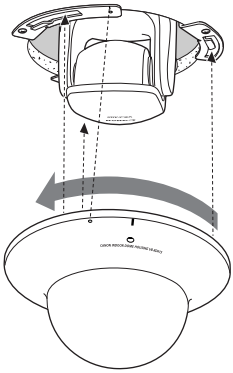
Insert the screws through the In-Ceiling Bracket and mount the In-Ceiling Bracket to the female parts of the roof space fittings.



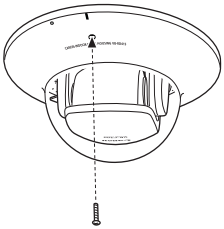
Continued on the following page. ➡

8. Mount the dome.

Align the mark (o) on the dome with the mark (I) of the In-Ceiling Bracket, and rotate the dome counterclockwise to the mark (I) to align the mounting screw holes to the mounting locations.



9. Fix the dome with a screw to prevent the dome from rotating.



10. When you finished mounting the camera, reboot the camera to initialize the camera position (→ Operation Guide P.1-20).

Tip

If the LED is turned ON, its light may be reflected by the dome and caught by the camera. In this case, change the LED setting to "Turn the LED OFF." (→ Operation Guide P.1-19).

Mounting is now complete.

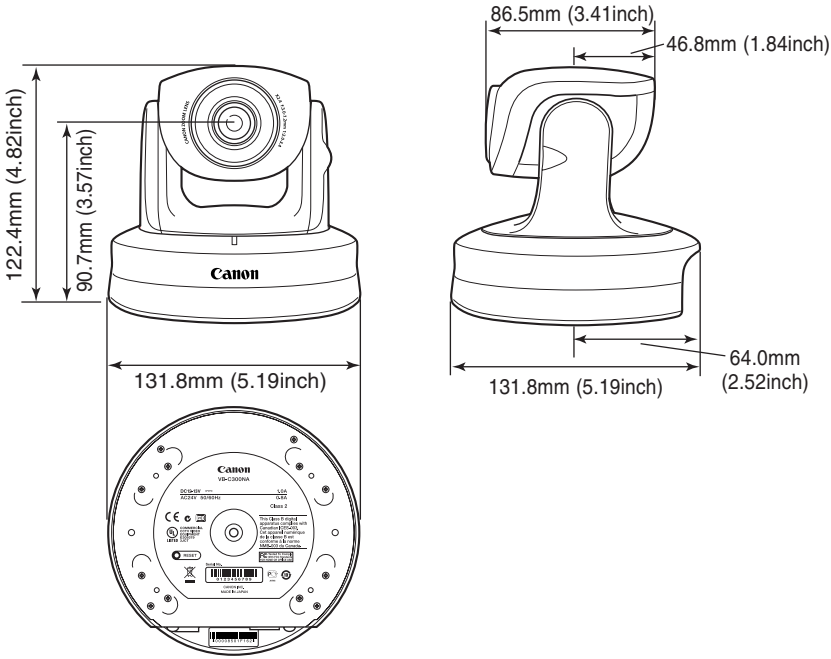
Chapter 3

Appendix

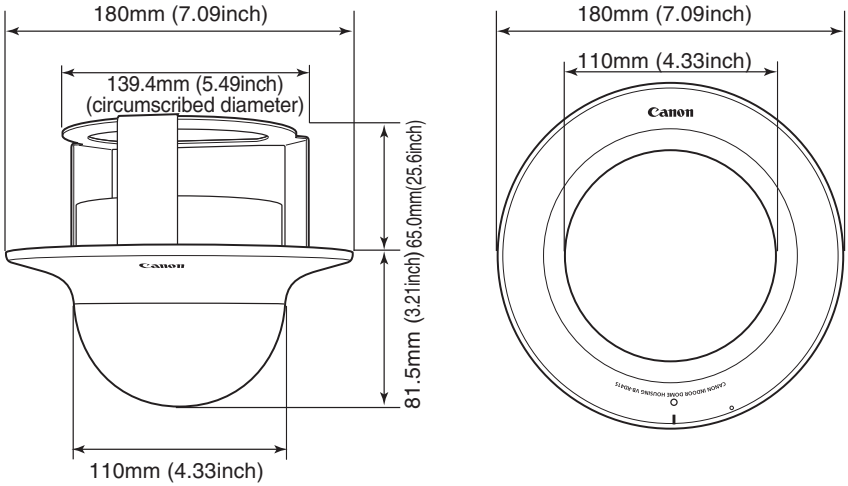
This appendix shows the external dimensions, specifications, and external device I/O terminals of the VB-C300.

External Dimensions

VB-C300



Indoor Dome Housing (VB-RD41S-C/S) (Optional)



Specifications

VB-C300	
Video signal	NTSC/PAL compliant
Image Sensor	1/4 - inch CCD (primary color filter)
Number of pixels	Effective: 310,000
Scanning Method	Progressive scan
Min. subject illumination	Day mode: 1 lux (F2.0, color, NTSC: 1/30 sec PAL: 1/25 sec) Night mode: 0.25 lux (F2.0, monochrome, NTSC: 1/30 sec PAL: 1/25 sec) When using the Indoor Dome Housing (Optional) VB-RD41S-S (smoked): Day Mode: 2 lux (F2.0, color, NTSC: 1/30 sec PAL: 1/25 sec) Night Mode: 2 lux (F2.0, monochrome, NTSC: 1/30 sec PAL: 1/25 sec)
Imaging modes	Day mode/Night mode
Focusing	Day mode: 0.3m (11.8 in) to ∞ and Night mode: 0.6m (23.6 in) to ∞ for Auto/Manual focusing at wide/telephoto ends
Aperture	Auto iris servo system
Lens	f=3.0 to 7.2mm F2.0 to 3.4 2.4x power zoom (shooting at infinity)
Viewing angle	Horizontal =70.8° (W) to 29.6° (t) Vertical =51.6° (W) to 22.1° (t) * Including distortion
Pan angle range	340° (±170°)
Tile angle range	Upright position = 115° (-25° to 90°) Inverted = 115° (-90° to 25°)
Moving rate	Pan = Max. 90°/ sec. Tilt = Max. 70°/ sec.
Infrared cut filter	Power-driven insertion/removal (Day mode/Night mode)
White Balance	TTL method Auto Manual presets One-shot
Protocols	HTTP, DHCP, WV-HTTP (from Canon)
Video compression method	Motion-JPEG compression (movie)/JPEG (still image)
Video compression rate	NTSC: 0.1fps to 30fps PAL: 0.1fps to 25fps (variable)
Audio compression method	G.711 μ-law (64kbps), full duplex
Output video size	NTSC/PAL: 160 x120, 320 x 240, 640 x 480
Camera control	Pan, tilt, zoom, brightness, shutter speed, focus speed, white balance
Connection Control	Access Control (password), number of concurrent connections (max. 15)
Main unit interface	Network: LAN x 1 (RJ45, 100Base-TX/10Base-T auto-negotiation) Audio IN/OUT: ø 3.5 monaural mini-jack IN: Connection to a microphone with amp and LINE output x 1 OUT: Connection to a speaker with amp x 1 VIDEO OUT: ø 3.5 monaural mini-jack Video composite signal output from network camera (for maintenance) x 1 External Device I/O: Input x 2, Output x 1
Dimensions	Approx. 121.6 mm (47.9 in) (H) x 131.8 mm (51.9 in) (W) x 129.9 mm(51.1 in) (D) (Main unit only, excluding rubber feet and ceiling bracket)
Weight	Approx. 780g (Approx. 1.72 lb) * For ceiling mount: Approx. 975g (Approx. 2.15 lb) (including ceiling bracket and ceiling mount cover)
Operating environment	Temperature -10 to 45°C, humidity 20 to 85% RH (condensation free)
Power	Capable of PoE power supply via LAN connector (IEEE802.3af compliant) 24VAC/12VDC (using the Supplied Connector, * no polarity) AC adapter for 100VAC to 240VAC (PA-V17)
Power consumption	Max.: Approx. 10W (PoE) Max.: Approx. 13W (AC adapter)

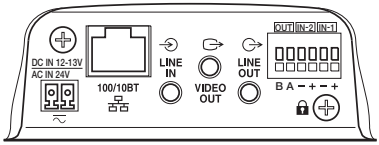
AC Adapter (Optional)	
Model	PA-V17
Input	100 – 240VAC, 50/60Hz
Output	13VDC 1.8A (Max.), Temperature: -10°C to 35°C, Humidity: 20 to 85%RH (condensation free) When using with the network camera 13VDC 1.0A (Max.), Temperature: -10°C to 45°C, Humidity: 20 to 85%RH (condensation free)
Polarity	Black (-) White (+)
Dimensions	58 x 118 x 25 mm (2.28 x 4.65 x 0.98 in) (W x D x H) (excluding attachments)
Weight	Approx. 215g (Approx. 0.474 lb) (excluding cables)

Indoor Dome Housing (Optional)	
Model	VB-RD41S-C/S
Type	Clear/Smoked type
Using environment in combination with the camera	Temperature -0 to 45°C, humidity 20 to 85% RH (condensation free)
Dimensions	ø 180 mm (ø 110 mm: dome) x 81.5 mm (H) * Including ceiling portion: 146.5 mm (H) ø 7.09 inch (ø 4.33 inch: dome) x 3.21 inch (H) * Including ceiling portion: 5.77 inch (H)
Weight	Approx. 372g (Approx. 0.820 lb) (Excluding the VB-C300)

* These specifications are subject to change without notice due to product improvements, etc.

I/O Terminals

There are External Device I/O, Audio I/O, Video out (for maintenance) and Network terminals on the back of the camera.



* You can check the external input status and operate external output using the NC viewer.

External Device I/O Terminals

The camera has two input and one output terminals for the external devices.

■ External Device Input Terminals (IN1, IN2)

The external device input terminals consist of two pairs of terminals (IN1, IN2). The - terminal is grounded on the inside of the main unit. By connecting 2 cables to the + and - terminals and then electrically short-circuiting across the terminals (ON) or separating the connection (OFF), an interrupt can be generated for the NC Viewer.

Note

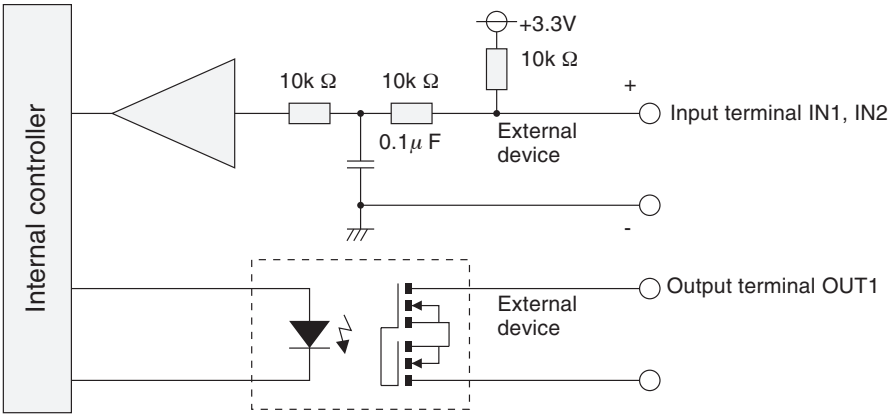
Connect any sensors or switches to terminals with electrically separate GND terminals and power supplies.

■ External Device Output Terminal (OUT)

The external device output terminal consists of a pair of two output terminals (OUT). There is no distinction between " + " and " - " for OUT. The NC Viewer switches the 2 output terminals to disconnected or connected condition. The output terminals use photo couplers and are separate from the internal circuit in the VB-C300.

Loads connected to the output terminals should be within the following ratings:
Rating across the output terminals: Up to 50 VDC
Continuous load current: 100 mA or less

■ Internal Connection Chart



Tip

The wire appropriate for external device cable is as follows.
AWG: # 28 - # 22
Conductor diameter: ø 0.32 - 0.65 mm (0.013 - 0.026 in)

Audio I/O Terminals

You can connect a microphone and speaker with amp to the camera and then send and receive audio via the NC Viewer. ø3.5 monaural mini-jack connector is used.

■ Audio Input Terminal (LINE IN)

Use this terminal to connect the camera and a microphone with amp. You can send audio to the NC Viewer.

■ Audio Output Terminal (LINE OUT)

Use this terminal to connect the camera and speaker with amp.
You can send audio from the NC Viewer to the speaker. Only the administrator can use this function.

Video Output Terminal (For maintenance)

By connecting a video cable connector to this terminal, you can display video image from the camera on the monitor screen. The video output terminal outputs interlaced analog video signals. Use this terminal for adjusting the camera position at setup. ø3.5 monaural mini-jack connector is used.

■ Video Output Terminal (VIDEO OUT)

This terminal is used to connect the camera and monitor.
This is the video output from the camera.

The video output terminal is used to check the video from the camera when installing or maintaining the camera.

Canon

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One Canon Plaza Lake Success, NY 11042-1198 USA

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